

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of claims in the application:

LISTING OF CLAIMS:

1 1. (currently amended) A multiple layer composite
2 for indicating the pH of a fluid environment comprising a
3 first layer containing a pH indicating agent for
4 responding to the fluid in the environment and a fluid
5 regulating additive to regulate fluid contact with said
6 pH indicating agent in said first layer, and a second
7 layer disposed between said first layer and said
8 environment to control fluid contact with said first
9 layer.

1 2. (original) A composite as in claim 1, wherein
2 said first and second layers are selected from the group
3 consisting of polymer layers, ink layers, fibrous layers
4 and combinations thereof.

1 3. (currently amended) A composite as in claim 2,
2 wherein said second layer is a fluid barrier layer that
3 is permeable or impermeable to said fluid, provided that
4 when said fluid barrier layer is impermeable, said fluid
5 may flow around the fluid barrier layer to contact said
6 first layer.

1 4. (currently amended) A composite as in claim 2,
2 wherein ~~one or both of said first and second layers~~ said
3 second layer includes a matrix containing a second fluid
4 regulating ~~means~~ additive.

1 5. (currently amended) A composite as in claim 4,
2 wherein said ~~fluid regulating means comprises~~ a second
3 fluid regulating additive is dispersed in said matrix.

1 6. (original) A composite as in claim 5, wherein
2 said matrix comprises a polymer.

1 7. (original) A composite as in claim 6, wherein
2 said fluid regulating additive is selected from the group
3 consisting of silica gel, superabsorbent polymers,
4 cellulosic resins, anhydride resins, polyolefin blend
5 resins, zeolites, calcium oxide, clays and calcium
6 sulfate.

1 8. (currently amended) A composite as in claim 5,
2 wherein said ~~matrix comprises~~ second layer is a layer of
3 printed ink having that provides said matrix, and has
4 said fluid regulating additive dispersed therein.

1 9. (currently amended) A composite as in claim 8,
2 wherein said layer of ~~printed~~ ink is formed with a pH
3 indicating ink.

1 10. (currently amended) A composite as in ~~claim 8,~~
2 ~~wherein said first layer is a printed ink layer~~ claim 2,
3 wherein said first layer comprises a first matrix having
4 said pH indicating agent and said fluid regulating agent
5 dispersed to regulate fluid contact with said pH
6 indicating agent, and said second layer comprises a
7 second matrix separate from said first matrix.

1 11. (original) A composite as in claim 3, wherein
2 said fluid barrier layer is a microporous fluid
3 dispersion layer.

1 12. (original) A composite as in claim 11, wherein
2 said fluid barrier layer is a polymer layer having a
3 moisture vapor transmission rate selected to restrict
4 fluid contact of said first layer below a threshold
5 amount of fluid in said environment.

1 13. (currently amended) A composite as in claim 3,
2 wherein said fluid barrier layer is a fibrous layer
3 formed of fibers having surfaces coated with a coating
4 containing a fluid regulating additive ~~moisture~~
5 ~~transmitting component.~~

1 14. (currently amended) A composite as in claim 2,
2 wherein said ~~fibers are~~ fibrous layers include hollow
3 fibers.

1 15. (currently amended) A composite as in claim 2,
2 wherein said composite includes coaxial fibers having
3 inner and outer fiber layers that provide said first and
4 second layers.

1 16. (currently amended) A composite as in claim 1,
2 wherein said ~~pH-indicating agent~~ composite provides a
3 different ~~responses~~ response to fluid contact at
4 different locations within said composite.

1 17. (currently amended) A composite as in claim ~~1~~
2 16, wherein said ~~pH-indicating agent~~ composite has
3 different concentrations of said pH indicating agent at
4 different locations within said thickness and said
5 different ~~responses are~~ response is a color or contrast
6 or intensity ~~variations~~ variation.

1 18. (currently amended) A composite as in claim ~~1~~
2 16, wherein said composite includes a second pH
3 indicating agent and said ~~pH-indicating agents provide~~
4 composite provides said different ~~responses~~ response at
5 different locations within said thickness.

1 19. (original) A composite as in claim 1, wherein
2 said pH indicating agent is selected from the group
3 consisting of cresol red, thymol blue, methyl yellow,
4 methyl orange, bromophenol blue, bromocresol green,

5 methyl red, p-Nitrophenol, phenol red, thymol blue,
6 phenolphthalein, Alizarin yellow R and mixtures thereof.

1 20. (original) A composite as in claim 1, wherein
2 said composite is part of an absorbent article worn on a
3 user's body.

1 21. (original) A composite as in claim 1, wherein
2 said composite is part of a fabric softener sheet.

1 22. (original) A composite as in claim 1, in
2 combination with a drying device having a window for
3 viewing the composite.

1 23. (original) A composite as in claim 1, wherein
2 said second layer reduces bleed of said pH indicating
3 agent into said fluid.

1 24. (currently amended) A wetness indicator
2 comprising a layer selected from the group consisting of
3 a polymer layer, an ink layer, a fibrous layer and
4 combinations thereof, said layer comprising a matrix
5 containing a pH indicating agent and a fluid regulating
6 additive to regulate fluid contact with said pH
7 indicating agent in said layer.

1 25. (original) An indicator as in claim 24, wherein
2 said matrix has a thickness and at least one surface to

3 be exposed to a fluid environment to be monitored by said
4 pH indicating agent, and said pH indicating agent and
5 said fluid regulating additive are dispersed through the
6 thickness of said matrix whereby fluid contacting the
7 surface is transmitted by said fluid regulating additive
8 into contact with said pH indicating agent within the
9 thickness of said matrix.

1 26. (currently amended) An indicator as in claim
2 25, wherein said fluid penetrates said thickness of said
3 matrix to an extent that is proportional to the
4 ~~concentration~~ amount of fluid in said environment.

1 27. (currently amended) An indicator as in claim
2 26, wherein said ~~pH-indicating agent~~ indicator provides a
3 different ~~responses~~ response to fluid contact at
4 different locations within said thickness of said matrix.

1 28. (currently amended) An indicator as in claim
2 27, wherein said pH indicating agent has different
3 concentrations at different locations within said
4 thickness and said different ~~responses are~~ response is a
5 color or contrast or intensity ~~variations~~ variation.

1 29. (currently amended) An indicator as in claim
2 28, wherein said indicator includes a second pH
3 indicating agent and said ~~pH-indicating agents provide~~

4 indicator provides said different color ~~responses~~
5 response at different locations within said thickness.

1 30. (original) An indicator as in claim 24, wherein
2 said fluid regulating additive is selected from the group
3 consisting of silica gel, superabsorbent polymers,
4 cellulosic resins, anhydride resins, polyolefin blend
5 resins, zeolites, calcium oxide, clays and calcium
6 sulfate.

1 31. (original) An indicator as in claim 24, wherein
2 said composite is part of an absorbent article worn on a
3 user's body.

1 32. (original) An indicator as in claim 24, wherein
2 said composite is a fabric softener sheet.

1 33. (original) An indicator as in claim 24, in
2 combination with a drying device having a window for
3 viewing the composite.

1 34. (original) An indicator as in claim 24, wherein
2 said fluid regulating additive provides a pathway into
3 said matrix for fluid contact with said pH indicating
4 agent within said matrix whereby less pH indicating agent
5 is required for the same response and less bleed of the
6 agent occurs as compared with an otherwise identical

7 matrix not having said pathway and providing the same
8 response.

1 35. (currently amended) A wetness indicator
2 comprising a multiple layer composite of a first ink
3 layer and a second ink layer, at least one of said layers
4 including ~~a fluid regulating additive and at least one of~~
5 ~~said layers including~~ a pH indicating agent and a fluid
6 regulating additive to regulate fluid contact with said
7 pH indicating agent in said at least one of said layers.

1 36. (currently amended) An indicator as in claim
2 35, wherein said ~~pH indicating ink layers contain a~~ fluid
3 regulating additive is selected from the group consisting
4 of silica gel, superabsorbent polymers, cellulosic
5 resins, anhydride resins, polyolefin blend resins,
6 zeolites, calcium oxide, clays and calcium sulfate.

1 37. (currently amended) An indicator as in claim
2 36, wherein said at least one layer provides of said
3 layers comprises a polymer matrix containing said pH
4 indicating agent and said fluid regulating additive.

1 38. (currently amended) An indicator as in claim
2 37, wherein said polymer matrix has a thickness and at
3 least one surface to be exposed to an environment
4 containing a fluid ~~providing the environment with a~~
5 ~~finite pH~~ to be monitored by said pH indicating agent,

6 and said pH indicating agent and said fluid regulating
7 additive are dispersed through the thickness of said
8 matrix whereby fluid contacting the surface is
9 transmitted by said fluid regulating additive into
10 contact with said pH indicating agent within the
11 thickness of said matrix.

1 39. (currently amended) An indicator as in claim
2 38, wherein said fluid penetrates said thickness of said
3 matrix to an extent that is proportional to the
4 ~~concentration~~ amount of fluid in said environment.

1 40. (currently amended) An indicator as in claim
2 39, wherein said ~~pH indicating agents provide~~ indicator
3 provides a different responses response to fluid contact
4 at different locations within said thickness of said
5 matrix.

1 41. (currently amended) An indicator as in claim
2 40, wherein said pH indicating agent has different
3 concentrations at different locations within said
4 thickness and said different ~~responses are~~ response is a
5 color ~~signal , or contrast or intensity variations~~
6 variation.

1 42. (currently amended) An indicator as in claim
2 41, wherein said indicator includes a second pH
3 indicating agent and said ~~pH indicating agents provide~~

4 indicator provides said different color ~~responses~~
5 response at different locations within said thickness.

1 43. (original) An indicator as in claim 41, wherein
2 said composite is part of an absorbent article worn on a
3 user's body.

1 44. (original) An indicator as in claim 37, wherein
2 said composite is a fabric softener sheet.

1 45. (original) An indicator as in claim 37, in
2 combination with a drying device having a window for
3 viewing the composite.

1 46. (currently amended) An indicator as in claim
2 35, wherein said at least one of said layers reduces
3 bleed of said pH indicating agent into said fluid.

1 47. (original) A wetness indicating ink comprising
2 a polymer, a pH indicating agent and a fluid regulating
3 additive in an amount effective to provide a cured or
4 dried layer of said ink having said additive dispersed
5 therein with sufficient moisture transmission to cause a
6 fluid contacting said layer to be transmitted into
7 contact with said pH indicating agent within said layer.

1 48. (original) An ink as in claim 47, wherein said
2 ink is a solvent ink containing a solvent soluble or
3 solvent dispersible fluid regulating additive.

1 49. (original) An ink as in claim 48, wherein said
2 ink is a radiation curable ink containing a dispersible
3 fluid regulating additive.

1 50. (original) An ink as in claim 47, wherein said
2 fluid regulating additive is selected from the group
3 consisting of silica gel, superabsorbent polymers,
4 cellulosic resins, anhydride resins, polyolefin blend
5 resins, zeolites, calcium oxide, clays and calcium
6 sulfate.